

## ABSTRACT

An isolation circuit for adjustable power system in which the user analog inputs and optional user analog outputs are isolated from the load common potential by discrete value isolators instead of expensive, less accurate, analog isolators. The isolation is achieved by: digitizing the analog signal using analog to digital converter (ADC), transmitting the digital signal through a digital isolator, and converting the isolated digital data back to analog signal using digital to analog converter DAC. Discrete-value opto-couplers or isolation transformers may be used as digital isolators.